Annual

Water Quality Report

Water testing performed in 2010

Presented By

Marietta WATER

PWS ID#: GA0670005

Dear Friends:

High quality, reliable drinking water is fundamental to our existence and quality of life. Our water and wastewater infrastructure is essential to Marietta's overall health, economy, and environment. Marietta Water employees know this and we are continually improving our skills and processes to provide our customers with the very best in these regards. We are regularly recognized for our efforts as a leader in our industry. In 2010, the Georgia Association of Water Professionals selected Marietta Water for both Water Distribution and Wastewater Collection Systems of the Year (medium size). We are one of the few systems in the entire State that have been able to "sweep" both awards in a single year. Our top notch facilities management and operations, highly trained personnel, advanced equipment, and technology resources continue to shine!

Together, Marietta Water and the rest of the Cobb County-Marietta Water Authority system perform more than 49,000 tests each year so that all of our customers get the best drinking water. I am proud to present this report, and we look forward to continuing to lead the way as stewards of our most precious resource. Rest assured that, as future regulations are developed or drought conditions happen, we will be meeting the challenges as an award-winning utility, YOUR award winning utility. For additional information please visit our website at www.mariettawater.com, and remember that Marietta Water has zero calories, tastes great, and costs less than a penny a gallon!

Sincerely,

Tim Marshall

Environmental Compliance Coordinator

Where Does My Water Come From?

Marietta Water purchases water from the Cobb County-Marietta Water Authority (CCMWA), a public utility founded in 1951. The CCMWA treatment facilities are supplied from two separate surface water sources. The James E. Quarles Treatment Facility, built in 1953, withdraws water from the Chattahoochee River. The Quarles plant can treat a maximum of 86 million gallons of water a day. This water is distributed and utilized on the eastern side of Cobb County and Marietta. The Hugh A. Wyckoff Treatment Facility, put online in 1972, withdraws water from Lake Allatoona. Lake Allatoona is a Corps of Engineers impoundment in north Cobb, south Cherokee, and south Bartow counties. This man-made, multi-use lake is part of the Etowah River Basin. The Wyckoff plant can treat a maximum of 72 million gallons of water a day. This water is distributed and utilized on the north and west side of Cobb County and Marietta. Visit http://www.ccmwa.org/.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.

Testing For *Cryptosporidium*

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in one of our source waters. Our testing, performed at the raw (untreated) water intake on the Chattahoochee River, located immediately north of the Johnson Ferry Road crossing, revealed the presence of *Cryptosporidium*. These organisms were detected in the water prior to treatment. During the same monitoring periods as the Chattahoochee River's, the water at Allatoona Lake was tested. No oocysts were detected. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctors regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Tim Marshall, Environmental Compliance Coordinator, at (770) 794-5229.

Q&A

Why does my water sometimes look milky?

The milky look is caused by tiny air bubbles in the water. Take a glass of cold water from the tap and set it on a flat surface. If the water begins to clear from the bottom up within a few minutes, dissolved air is the cause of the cloudy appearance. The air bubbles are moving to the top of the container to escape into the open atmosphere. Although the milky appearance might be disconcerting, the air bubbles won't affect the quality or taste of the water.

Is it okay to use hot water from the tap for cooking and drinking?

No, ALWAYS use cold water. Hot water is more likely to contain rust, copper, and lead from household plumbing and water heaters. These substances can dissolve into hot water faster than they do into cold water, especially when the faucet has not been used for an extended period of time.

Community Participation

Marietta Water operates under the supervision of the Board of Lights and Water (BLW). The BLW was created through the State Legislature. There are seven Board Members, including The Mayor (as Chair), a City Council Member (appointed by the Mayor), and five other members of the community (appointed by the City Council.)

The board meets the Monday before the second Wednesday of each month. Marietta Water maintains regular operating hours of Monday through Friday, 7:00 a.m. to 4:00 p.m. To reach the service and maintenance department 24 hours a day, please call (770) 794-5230.

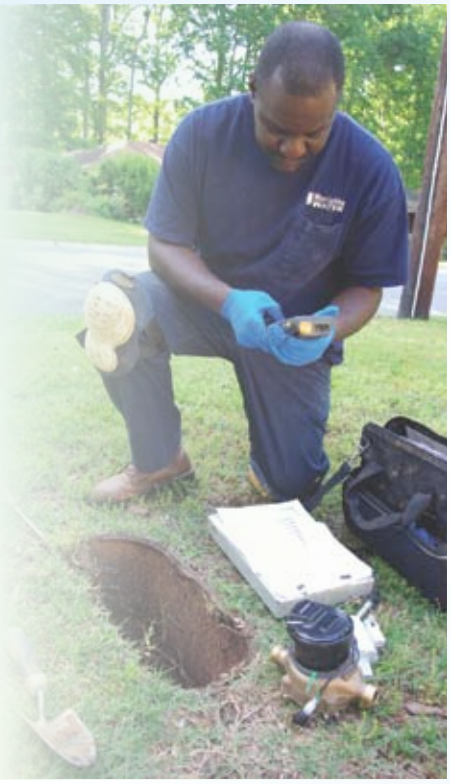
Source Water Assessment

During 2002, the CCMWA and the Atlanta Regional Commission completed a source water assessment itemizing potential sources of water pollution to our surface drinking water supplies. This information can help you understand the potential for contamination of your drinking water supplies and can be used to prioritize the need for protecting drinking water sources.

The source water assessment is a study and report that provides the following information: identifies the area of land that contributes the raw water used for drinking water; identifies potential sources of contamination to drinking water supplies; and provides an understanding of the drinking water supply's susceptibility to contamination.

Individual (point) source pollution involves actual facilities, which have contaminants on site that can pose a potential health risk if humans consume those contaminants. Nonpoint source pollution, which is caused by development and by everyday activities that take place in residential, commercial, and rural areas, is carried by rainfall to streams and lakes. After evaluating these sources of pollution, the report found the Chattahoochee watershed susceptibility ranking to be high and the Lake Allatoona watershed susceptibility ranking to be medium.

For more information on this project, visit the source water assessment Web site at www.atlantaregional.com/swap/, or you can request information by mail from the Environmental Planning Division, Atlanta Regional Commission, 40 Courtland Street NE, Atlanta, GA 30303.



Substances That Could Be in Water

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Lead and Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Marietta Water is responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Sampling Results

Water samples are routinely being analyzed throughout the year in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The Georgia Environmental Protection Division has determined that the concentrations of certain water quality monitoring parameters does not change frequently with our system. Therefore, some of the data presented in this report are greater than one year old.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine[1] (ppm)	2010	[4]	[4]	2.14	ND–2.14	No	Water additive used to control microbes
Chlorite (ppm)	2010	1.0	0.8	0.51	0.13–0.51	No	By-product of drinking water disinfection
Fluoride (ppm)	2010	4	4	1.02	ND–1.02	No	Erosion of natural deposits; Water additive that promotes strong teeth
Haloacetic Acids [HAAs][2] (ppb)	2010	60	0	26.0	10.8–35.1	No	By-products of drinking water disinfection
Nitrate + Nitrite (ppm)	2010	10	10	0.48	0.39–0.48	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes][2] (ppb)	2010	80	NA	44.0	14.8–82.3	No	By-products of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2010	5% of monthly samples are positive	0	1.37	NA	No	Naturally present in the environment
Total Organic Carbon (ppm)	2010	TT	NA	2.1	1.0–2.1	No	Naturally present in the environment; Decay of organic matter in the water withdrawn from sources such as lakes and streams
Turbidity[3] (NTU)	2010	TT=1NTU	0	0.16	ND–0.16	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2010	TT=95% of samples<0.3NTU	0	100%	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community[4]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2008	1.3	0	0.032	0/50	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2008	15	0	9.7	3/50	No	Corrosion of household plumbing systems; Erosion of natural deposits

INITIAL DISTRIBUTION SYSTEM EVALUATION RESULTS[5]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Haloacetic Acids [HAAs]–IDSE Results (ppb)	2008	25.5	8.6–39.0	By-products of drinking water disinfection
TTHMs [Total Trihalomethanes]–IDSE Results (ppb)	2008	59.8	11.9–93.5	By-products of drinking water disinfection

[1] Detection limit for chlorine is 0.05 ppm. Disinfection was confirmed by heterotrophic plate count. This method measures total bacteria in a sample. The result was within acceptable limits.
[2] This contaminant is regulated by the average concentration over a period of a year.
[3] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.
[4] The next round of testing is due in 2011.
[5] We were required by the U.S. EPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our distribution system that may have elevated disinfection by-product concentrations. Disinfection by-products (e.g., HAAs and TTHMs) result from continuous disinfection of drinking water and form when disinfectants combine with organic matter that naturally occurs in the source water. Amount Detected is the highest LRAA (Locational Running Annual Average) for 17 sample sites. The range is for all samples taken during this evaluation from October 2007 to August 2008.

Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.